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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/954,500 | 09/17/2001 | Nicholas F. Borrelli | Borrelli 83 A | 8916 |

29988 7590 07/07/2003

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EXAMINER

THORNTON, YVETTE C

| ART UNIT | PAPER NUMBER |
|----------|--------------|
| 1752 | 7 |

DATE MAILED: 07/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

| | | |
|--------------------|-----------------|--|
| Application No. | Applicant(s) | |
| 09/954,500 | BORRELLI ET AL. | |
| Examiner | Art Unit | |
| Yvette C. Thornton | 1752 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 9/17/01.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-60 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) _____ is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) 1-60 are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.

4) Interview Summary (PTO-413) Paper No(s). _____.
 5) Notice of Informal Patent Application (PTO-152)
 6) Other: _____

DETAILED ACTION

This is written in reference to application number 09/954500 filed on September 17, 2001.

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-23, 42, and 52-59, drawn to a method of writing a light guiding structure using soft silica based material, classified in class 430, subclass 321.
 - II. Claims 24-40, drawn to a method of writing a light guiding structure using hard doped silica based material, classified in class 430, subclass 321.
 - III. Claim 41, drawn to a method of writing a light guiding structure using a silica based material made by a flame hydrolysis process, classified in class 430, subclass 198.
 - IV. Claims 43-51 and 60, drawn to a method of making a 3-D internal tunnel structure, classified in class 430, subclass 322.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I, II, III and IV are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions have different modes of operation, different functions, or different effects. The first invention has a soft silica based material requiring an annealing temperature of less than 1380 °K (spec. pg. 9), while the second invention has a hard-doped silica material requiring an annealing temperature higher than 1380 °K (spec. pg. 10). The third invention uses a silica, which is made by flame hydrolysis. Neither group I nor group II

require a process of making the claimed silica. The fourth invention pertains to a 3-D structure, which requires the glass body to have an interior and requires formation of a converging focused laser beam, which is focused inside the glass body. The other inventions do not require an interior portion and require translating the focus along a scan path.

3. Because these inventions are distinct for the reasons given above and the search required for each of groups I, II, III, and IV is different, restriction for examination purposes as indicated is proper. Although, the searches for groups I and II are classified the same, the electronic search for the said groups are vastly different. Group I would require a search for a second dopant as set forth in dependent claim 8 and an annealing temperature below 1380 °K. Group II fails to claim a second dopant step and fails to require a specific annealing temperature. The specification indicates that the annealing temperature of the hard-doped silica is above 1380°K. Group I requires the doped material to be selected from the group consisting of GeO_2 , B_2O_3 , Al_2O_3 and P_2O_5 while group II only requires the material to be GeO_2 . Therefore, requiring searches for different annealing temperature, different doping steps and different dopant materials. Because the search for group I is not required for group II, restriction for examination purposes are indicated as proper.

4. The examiner notes that group III containing claim 41 may be a linking claim. The examiner is unclear as to whether or not the soft-silica and the hard-silica are both made by the same flame hydrolysis process. If applicants provide evidence that the both groups I and II are made by the process of claim 41, the examiner will treat claim 41 as a linking claim and examine it with either group I or group II as elected.

5. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

6. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yvette C. Thornton whose telephone number is 703-305-0589. The examiner can normally be reached on Monday-Thursday 8-6:30.

8. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Janet C. Baxter can be reached on 703-308-2303. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

9. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1495.


Yvette Clarke Thornton
Junior Examiner
Art Unit 1752

yct
July 1, 2003